What is claimed is:

1. In a stented graft that can alternately include a compact configuration having a first diameter and an expanded configuration having a greater diameter, comprising, in combination:
   - at least one stent formed in a generally cylindrical shape having an outer surface and a hollow bore extending longitudinally therethrough, wherein said stent can alternately exist in a compact configuration having a first diameter, and an expanded configuration having a greater diameter and a plurality of lateral openings; and,
   - a flexible, porous, biocompatible tubular elastomer covering having a first end, a second end, an outer surface and a hollow bore that extends longitudinally therethrough to define an inner surface;

   said stent being deployed coaxially within said hollow bore of said covering such that said inner surface of said tubular covering is in contact with said outer surface of said stent;

   the improvement wherein said stent is coated with a coat comprising a composite of at least one polymer and at least one therapeutic substance to form a drug eluting stented graft.

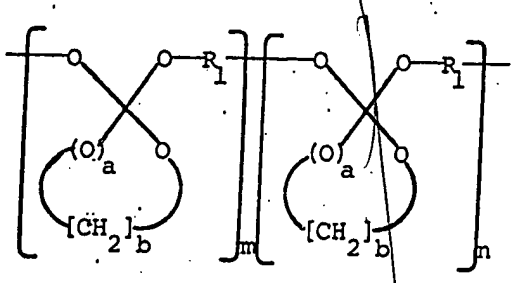
2. The drug eluting stented graft of claim 1, wherein said at least one polymer is a biocompatible, pharmaceutically acceptable, bioerodible polymer.

3. The drug eluting stented graft of claim 1, wherein said at least one polymer is a polyester.

4. The drug eluting stented graft of claim 1, wherein said at least one therapeutic agent is selected from the group consisting of antiplatelet agents, anticoagulant agents, antimetabolic agents, vasoactive agents, nitric oxide releasing agents, anti-inflammatory agents, antiproliferative agents, antisense agents, pro-endothelial agents, anti-migratory agents, antimicrobial agents, selective gene delivery vectors, sirolimus, actinomycin-D and paclitaxel.

5. The drug eluting stented graft of claim 4, wherein said selective gene delivery vectors are Semliki Forest Virus (SMV) adapted to deliver restenosis preventing genes.

6. The drug eluting stented graft of claim 1, wherein said at least one polymer is a hydrophobic, bioerodible, copolymer comprising mers I and II according to the following formula:

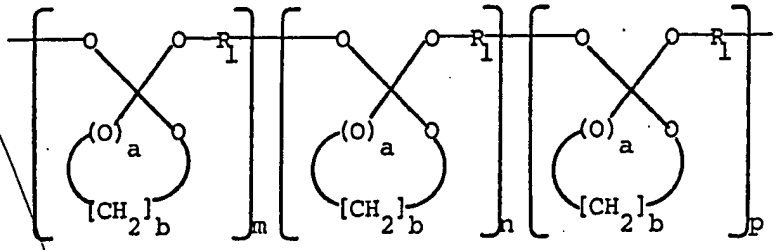


wherein:

- R_1 is a member selected from the group consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with a member selected from the group consisting of alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, an alkenyl of 2 to 7 carbons; and wherein a is 0 to 1; b is 2 to 6; m is greater than 10; n is greater than 10; and at least one of R_1, a, and b in mer I is different than R_1, a, and b in mer II; and wherein:

- said composite of at least one polymer and at least one therapeutic substance when in operation bioerodes and releases said at least one therapeutic substance at a rate selected from (1) a zero order rate,(2) a continuous rate, and (3) a variable rate, which rate is produced by preselecting said composite of at least one polymer and at least one therapeutic substance, and said elastomer to give the desired result.

7. The drug eluting stented graft of claim 1, wherein said at least one polymer is a hydrophobic, bioerodible, terpolymer comprising mers I, II, and III according to the following formula:



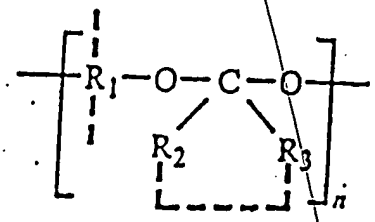
wherein:

- R_1 is a member selected from the group consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with a member selected from the group consisting of alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, an alkenyl of 2 to 7 carbons; and wherein a is 0 to 1; b is 2 to 6; m is greater than 10; n is greater than 10; p is greater than 10; and at least one of R_1, a, and b in mers I, II and III is different than R_1, a, and b in mers I, II and III; and wherein:

- said composite of at least one polymer and at least one therapeutic substance when in operation bioerodes and releases said at least one therapeutic substance at a rate selected from (1) a zero order rate,(2) a continuous rate, and (3) a variable rate, which rate is produced by preselecting said composite of said at least one polymer and said at least one therapeutic substance, and said elastomer to give the desired result.

8. The drug eluting stented graft of claim 1, wherein:

- a multiplicity of microcapsules is dispersed within said at least one polymer, wherein said microcapsules have a wall formed of a drug release rate controlling material;
- said at least one therapeutic substance is contained within said multiplicity of microcapsules; and,
- said at least one polymer has the formula:



wherein R_1 is a member selected from the group of divalent, trivalent and tetravalent radicals consisting of alkylene of 1 to 10 carbons; alkenylene of

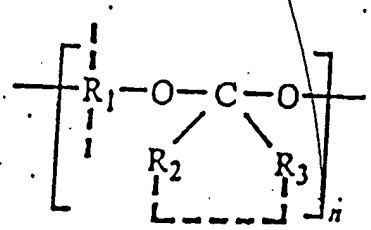
2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with an alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, and an alkenyl of 2 to 7 carbons; R_2 and R_3 are selected from the group consisting of alkyl of 1 to 7 carbons; alkenyl of 2 to 7 carbons; alkoxy of 1 to 7 carbons; alkenyloxy of 2 to 7 carbons; alkylene of 2 to 6 carbons; alkenylene of 3 to 6 carbons; alkyleneoxy of 2 to 6 carbons; alkenyleneoxy of 3 to 6 carbons; aryloxy; aralkyleneoxy of 8 to 12 carbons; aralkenyleneoxy of 8 to 12 carbons; oxa; OR_1O with R_1 as defined above; a heterocyclic ring of 5 to 8 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a heterocyclic ring of 5 to 8 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and alkenyl of 2 to 7 carbons formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons; an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons; and wherein at least one of said R_2 and R_3 is a member selected from the group consisting of alkoxy, alkenyloxy and OR_1O; R_2

and R_3 when taken together are a member selected from the group of heterocyclic and fused polycyclic rings having at least one oxygen atom in the ring; and wherein n is greater than 10;

so that, in operation, said polymer and said microcapsules bioerode at a controlled and continuous rate over a prolonged period of time, thereby releasing said at least one therapeutic substance at a controlled and continuous rate over a prolonged period of time.

9. The drug eluting stented graft of claim 1, wherein:

- said coat further comprises at least a first layer and a second layer, wherein said first layer comprises said at least one therapeutic substance and at least a first polymer, and said second layer comprises said at least one therapeutic substance and at least a second polymer, wherein at least one of said first polymer and said second polymer are selected from the group consisting of polymers of the formula:



wherein R_1 is a member selected from the group of divalent, trivalent and tetravalent radicals consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with an alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, and an alkenyl of 2 to 7 carbons; R_2 and R_3 are selected from the group consisting of alkyl of 1 to 7 carbons; alkenyl of 2 to 7 carbons; alkoxy of 1 to 7 carbons; alkenyloxy of 2 to 7 carbons; alkylene of 2 to 6 carbons; alkenylene of 3 to 6 carbons; alkyleneoxy of 2 to 6 carbons; alkenyleneoxy of 3 to 6 carbons; aryloxy; aralkyleneoxy of 8 to 12 carbons; aralkenyleneoxy of 8 to 12 carbons; oxa; O R_1O with R_1 as defined above; a heterocyclic ring of 5 to 8 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a heterocyclic ring of 5 to 8 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons; an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons formed when R_2 and $R_{3\ are}$ taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen

atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons; and wherein at least one of said R_2 and R_3 is a member selected from the group consisting of alkoxy, alkenyloxy and OR_1O; R_1 and R_3 when taken together are a member selected from the group of heterocyclic and fused polycyclic rings having at least one oxygen atom in the ring; and wherein is greater than 10;

so that when in operation, said layers bioerode at a controlled and continuous rate over a prolonged period of time, thereby releasing said at least one therapeutic substance at a controlled and continuous rate over a prolonged period of time.

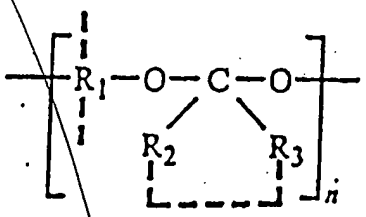
10. The drug eluting stented graft of claim 9, wherein said first polymer is a pharmaceutically acceptable biocompatible non-bioerodible polymer that sequesters an agent for brachytherapy.

11. The drug eluting stented graft of claim 10, wherein said agent for brachytherapy is selected from the group consisting of palladium-103 (^{103}Pd), ^{192}Ir, ^{32}P, ^{188}Re, and Sr/Y90 source trains.

12. The drug eluting stented graft of claim 1, wherein:

- a multiplicity of discrete, closed cells exists within said at least one polymer, said cells having a wall formed and defined by said at least one polymer;

- said at least one polymer has the formula:



wherein R_1 is a member selected from the group of divalent, trivalent and tetravalent radicals consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with an alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, and an alkenyl of 2 to 7 carbons; R_2 and R_3 are selected from the group consisting of alkyl of 1 to 7 carbons; alkenyl of 2 to 7 carbons; alkoxy of 1 to 7 carbons; alkenyloxy of 2 to 7 carbons; alkylene of 2 to 6 carbons; alkenylene of 3 to 6 carbons; alkyleneoxy of 2 to 6 carbons; alkenyleneoxy of 3 to 6 carbons; aryloxy; aralkyleneoxy of 8 to 12 carbons; aralkenyleneoxy of 8 to 12 carbons; oxa;

OR_1O with R_1 as defined above; a heterocyclic ring of 5 to 8 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a heterocyclic ring of 5 to 8 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons; and wherein at least one of said R_2 and R_3 is a member selected from the group consisting of alkoxy, alkenyloxy and OR_1O; R_2 and R_3 when taken together are a member selected from the group of heterocyclic and fused polycyclic rings having at least one oxygen atom in the ring; and wherein n is greater than 10;

- wherein said at least one therapeutic substance dissolved in a pharmaceutically acceptable carrier that is a solvent for said at least one therapeutic substance and a nonsolvent for said at least one polymer is contained within said multiplicity of discrete, closed cells;

so that, when in operation, said at least one polymer is capable of bioeroding at a controlled and continuous rate over a prolonged period of time, thereby releasing said at least one therapeutic substance at a controlled and continuous rate over a prolonged period of time.

13. The drug eluting stented graft of claim 1, wherein said stent comprises a plurality of elements, wherein each said element comprises an undulating linear shape formed into a generally cylindrical configuration having a cylinder axis generally aligned on the axis of said hollow bore, and wherein each said element is connected to an adjacent neighbor element by at least one linear connector.

14. The drug eluting stented graft of claim 1, wherein said plurality of elements comprises a spiral.

15. The drug eluting stented graft of claim 1, wherein at least one said connector is substantially circumferentially offset from an adjacent neighbor connector.

16. The drug eluting stented graft of claim 15, wherein said circumferentially offset connectors form a helical array.

17. The drug eluting stented graft of claim 1, wherein at least one said connector is not substantially circumferentially offset from an adjacent neighbor connector.

18. The drug eluting stented graft of claim 1, wherein said undulating linear shape is a generally zigzag shape comprising a plurality of zigs having tips and a plurality of zags having tips, wherein said tip of each said zig of each element

and the nearest said tip of each said zig of an adjacent neighbor element generally lie in a plane passing through the axis of said hollow bore, and wherein said tip of at least one said zig of each element and at least one said nearest said tip of a zig of an adjacent neighbor are connected by one said linear connector.

19. The drug eluting stented graft of claim 1, wherein said undulating linear shape is a sinusoidal shape having a plurality of peaks and a plurality of valleys, wherein each said peak of each element and each said valley of an adjacent neighbor lie generally in a common plane passing through the axis of said hollow bore, and wherein at least one said peak of each element and said valley of an adjacent neighbor lying generally in said common plane are connected by one said linear connector.

20. The drug eluting stented graft of claim 1, wherein each said linear connector has a length dimension generally parallel to the axis of said hollow bore, and a width and depth dimension, and wherein said length dimension is greater than said width dimension and said length dimension is greater than said depth dimension.

21. The drug eluting stented graft of claim 20, wherein said length dimension is about 3 to 10 times greater than said width dimension, and said length dimension is about 3 to 10 times greater than said depth dimension.

22. The drug eluting stented graft according to claim 1, wherein said stent and said elastomer are anchored to each other by means for anchoring.

23. The tubular drug eluting stented graft according to claim 22, wherein said means for anchoring comprise protrusions of said covering that fixedly protrude into said lateral openings in said stent.

24. The drug eluting stented graft of claim 1 wherein said elastomer covering is formed of an elastomer selected from the group consisting of polytetrafluoroethylene, fluorinated ethylene propylene, polytetrafluoroethylene-perfluoroalkyl vinyl ether copolymer, polyvinyl chloride, polypropylene, polyethylene terephthalate, broad fluoride; and, other biocompatible plastics.

25. The drug eluting stented graft of claim 1 wherein said elastomer covering is formed of expanded, sintered PTFE tape, said tape having been wound about the outer surface of said stent to create said covering thereon.

26. The drug eluting stented graft of claim 24, wherein said polytetrafluoroethylene is expanded polytetrafluoroethylene having fibrils.

27. The drug eluting stented graft of claim 26, wherein said fibrils measure up to about 300 μ in length.

28. The drug eluting stented graft of claim 26, wherein said fibrils measure up to about 200 μ in length.

29. The drug eluting stented graft of claim 26, wherein said fibrils measure up to about 100 μ in length.

30. The drug eluting stented graft of claim 26, wherein said fibrils measure up to about 50 μ in length.

31. The drug eluting stented graft of claim 26, wherein said fibrils measure up to about 5 μ in length.

32. The drug eluting stented graft of claim 25 wherein said tape has a width of less than about 1 inch.

33. The drug eluting stented graft of claim 25 wherein said tape has a thickness of less than 0.015 inch (0.038 cm.) and wherein said tape is wound about said stent in overlapping fashion, such that said elastomer covering comprises 1 to 10 layers of said tape.

34. The drug eluting stented graft of claim 25 wherein said tape is helically wrapped about said stent.

35. The drug eluting stented graft of claim 25 wherein said tape has a width of 0.5 inches (1.27 cm), and wherein said tape is helically wrapped such that 6-8 revolutions of tape are applied per longitudinal inch (2.54 cm.) of said drug eluting stented graft.

36. The drug eluting stented graft of claim 25 wherein said tape is helically wrapped alternately in a first direction and then in the opposite direction.

37. The drug eluting stented graft of claim 36 further comprising 8 layers of said tape.

38. The drug eluting stented graft of claim 1 wherein said stent is a self-expanding stent.

39. The drug eluting stented graft of claim 38, wherein said self-expanding stent comprises a shape memory alloy that can alternately exist in a first and a second crystalline state, wherein said stent assumes a radially expanded configuration when said shape memory alloy is in said first crystalline state, and a radially compact configuration when said shape memory alloy is in said second crystalline state.

40. The drug eluting stented graft of claim 1 wherein said stent is a pressure-expandable stent.

41. The drug eluting stented graft of claim 1 wherein said stent is formed of a metal alloy comprising at least two elements selected from the group consisting of iron, cobalt, chromium, nickel, titanium, niobium, and molybdenum.

42. The drug eluting stented graft of claim 39 wherein said shape memory alloy comprises at least about 51% to about 59% nickel and the remainder comprising titanium.

43. The drug eluting stented graft of claim 39 wherein said shape memory alloy comprises about 0.25% chromium, at least about 51% to about 59% nickel, and the remainder comprising titanium.

44. The drug eluting stented graft of claim 1 wherein said covering has a thickness of less than 0.1 inch (0.25 cm.).

45. The drug eluting stented graft of claim 25 wherein said PTFE tape has a thickness of less than 0.015 inches (0.038 cm.), said tape being wrapped about said stent in overlapping fashion so as to form said covering.

46. The drug eluting stented graft of claim 25 wherein said PTFE tape has a density of less than 1.6 g/cc.

47. The drug eluting stented graft of claim 25 wherein said covering has a thickness of less than 0.1 inch (0.25 cm.) and said PTFE tape has a density of less than 1.6 g/cc.

48. The drug eluting stented graft of claim 1 wherein said composite coating was applied to said stent by the steps of:

- immersing said stent in a liquid dispersion of said composite;
- removing said stent from said liquid dispersion of said composite; and,
- drying said liquid dispersion of said composite that has remained on said stent,

whereby said composite coating is formed on said stent.

49. The drug eluting stented graft of claim 1 wherein said composite coating is formed by electron beam deposition.

50. The drug eluting stented graft of claim 1 wherein said tubular covering is adherent to said coat.

51. A method for the treatment of cardiovascular disease, comprising implanting the drug eluting stented graft of claim 1 in a patient in need of such treatment wherein said implantation is effective to ameliorate one or more of the symptoms of said cardiovascular disease.

52. An article of manufacture, comprising packaging material and the drug eluting stented graft of claim 1 contained within the packaging material, wherein said drug eluting stented graft is effective for implantation in a patient afflicted with cardiovascular disease, and the packaging material includes a label that indicates that said device is effective for said implantation.

53. In a tubular stented graft which is alternately deployable in a radially compact configuration having a first diameter and a radially expanded configuration having a second diameter, said stented graft comprising:

- a stent comprising:
  - at least one member formed in a generally cylindrical shape having an outer surface and a hollow bore which extends longitudinally therethrough to define an inner surface;
  - said stent being initially radially collapsible to a diameter which is substantially equal to said first diameter of the stented graft, and subsequently radially expandable to a diameter which is substantially equal to said second diameter of the stented graft; and,

- a plurality of lateral openings existing in said stent when said stent is at its radially expanded second diameter;

- a continuous, tubular PTFE covering formed on said stent, said PTFE covering comprising:
  - a tubular inner base graft formed of expanded, sintered PTFE, said tubular base graft having an outer surface and an inner surface, said tubular base graft being deployed coaxially within the hollow bore of said stent such that the outer surface of the tubular base graft is in contact with the inner surface of the stent, and the inner surface of said tubular base graft thereby defining a luminal passageway through the stented graft; and,
  - a tubular outer layer formed of expanded, sintered PTFE tape which has a width of less than about 1 inch, said tape having been wound about the outer surface of said stent to create said tubular outer layer thereon, such that said stent is captured between said outer layer and said tubular base graft;

  said tubular outer layer being attached to said tubular base graft, through said lateral openings in said stent, to thereby form an integrally stented, continuous PTFE tube which is alternately disposable in said radially compact configuration of said first diameter and said radially expanded configuration of said second diameter;

the improvement wherein said stent is coated with a coat comprising a composite of at least one polymer and at least one therapeutic substance to form a drug eluting stented graft.

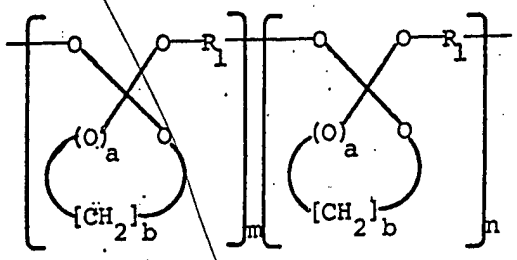
54. The drug eluting stented graft of claim 53, wherein said at least one polymer is a biocompatible, pharmaceutically acceptable, bioerodible polymer.

55. The drug eluting stented graft of claim 53, wherein said at least one polymer is a polyester.

56. The drug eluting stented graft of claim 53, wherein said at least one therapeutic agent is selected from the group consisting of antiplatelet agents, anticoagulant agents, antimetabolic agents, antisense agents, vasoactive agents, nitric oxide releasing agents, anti-inflammatory agents, antiproliferative agents, pro-endothelial agents, anti-migratory agents, antimicrobial agents, selective gene delivery vectors, sirolimus, actinomycin-D and paclitaxel.

57. The drug eluting stented graft of claim 56, wherein said selective gene delivery vectors are Semliki Forest Virus (SMV) adapted to deliver restenosis preventing genes.

58. The drug eluting stented graft of claim 53, wherein said at least one polymer is a hydrophobic, bioerodible, copolymer comprising mers I and II according to the following formula:

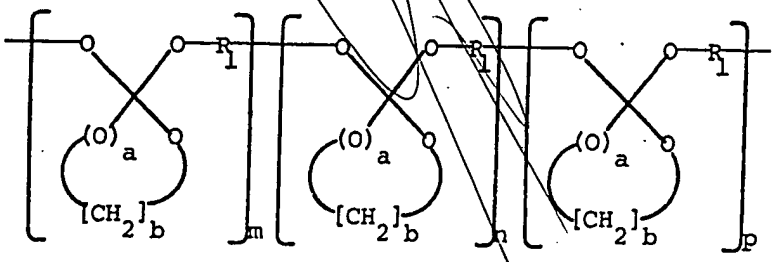


wherein:

- R_1 is a member selected from the group consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with a member selected from the group consisting of alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, an alkenyl of 2 to 7 carbons; and wherein a is 0 to 1; b is 2 to 6; m is greater than 10; n is greater than 10; and at least one of R_1, a, and b in mer I is different than R_1, a, and b in mer II; and wherein:

- said composite of at least one polymer and at least one therapeutic substance when in operation bioerodes and releases said at least one therapeutic substance at a rate selected from (1) a zero order rate, (2) a continuous rate, and (3) a variable rate, which rate is produced by preselecting said composite of at least one polymer and at least one therapeutic substance, and said elastomer to give the desired result.

59. The drug eluting stented graft of claim 53, wherein said at least one polymer is a hydrophobic, bioerodible, terpolymer comprising mers I, II, and III according to the following formula:



wherein:

- R_1 is a member selected from the group consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with a member selected from the group consisting of alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene

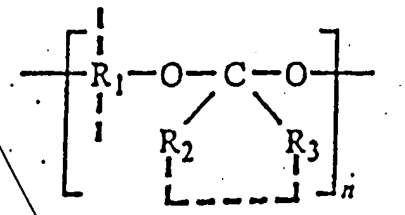
substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, an alkenyl of 2 to 7 carbons; and wherein a is 0 to 1; b is 2 to 6; m is greater than 10; n is greater than 10; p is greater than 10; and at least one of R_1, a, and b in mers I, II and III is different than R_1, a, and b in mers I, II and III; and wherein:

- said composite of at least one polymer and at least one therapeutic substance when in operation bioerodes and releases said at least one therapeutic substance at a rate selected from (1) a zero order rate, (2) a continuous rate, and (3) a variable rate, which rate is produced by preselecting said composite of said at least one polymer and said at least one therapeutic substance, and said elastomer to give the desired result.

60. The drug eluting stented graft of claim 53, wherein:

- a multiplicity of microcapsules is dispersed within said at least one polymer, wherein said microcapsules have a wall formed of a drug release rate controlling material;
- said at least one therapeutic substance is contained within said multiplicity of microcapsules; and,

- said at least one polymer has the formula:



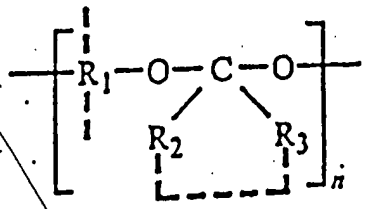
wherein R_1 is a member selected from the group of divalent, trivalent and tetravalent radicals consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with an alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene, and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, and an alkenyl of 2 to 7 carbons; R_2 and R_3 are selected from the group consisting of alkyl of 1 to 7 carbons; alkenyl of 2 to 7 carbons; alkoxy of 1 to 7 carbons; alkenyloxy of 2 to 7 carbons; alkylene of 2 to 6 carbons; alkenylene of 3 to 6 carbons; alkyleneoxy of 2 to 6 carbons; alkenyleneoxy of 3 to 6 carbons; aryloxy; aralkyleneoxy of 8 to 12 carbons; aralkenyleneoxy of 8 to 12 carbons; oxa; OR_1O with R_1 as defined above; a heterocyclic ring of 5 to 8 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a heterocyclic ring of 5 to 8 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and alkenyl of 2 to 7 carbons formed

when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons; an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons; and wherein at least one of said R_2 and R_3 is a member selected from the group consisting of alkoxy, alkenyloxy and OR_1O; R_2 and R_3 when taken together are a member selected from the group of heterocyclic and fused polycyclic rings having at least one oxygen atom in the ring; and wherein n is greater than 10;

so that, in operation, said polymer and said microcapsules bioerode at a controlled and continuous rate over a prolonged period of time, thereby releasing said at least one therapeutic substance at a controlled and continuous rate over a prolonged period of time.

61. The drug eluting stented graft of claim 53, wherein:

- said coat further comprises at least a first layer and a second layer, wherein said first layer comprises said at least one therapeutic substance and at least a first polymer, and said second layer comprises said at least one therapeutic substance and at least a second polymer, wherein at least one of said first polymer and said second polymer are selected from the group consisting of polymers of the formula:



wherein R_1 is a member selected from the group of divalent, trivalent and tetravalent radicals consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with an alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, and an alkenyl of 2 to 7 carbons; R_2 and R_3 are selected from the group consisting of alkyl of 1 to 7 carbons; alkenyl of 2 to 7 carbons; alkoxy of 1 to 7 carbons; alkenyloxy of 2 to 7 carbons; alkylene of 2 to 6 carbons; alkenylene of 3 to 6 carbons; alkyleneoxy of 2 to 6 carbons; alkenyleneoxy of 3 to 6 carbons; aryloxy; aralkyleneoxy of 8 to 12 carbons; aralkenyleneoxy of 8 to 12 carbons; oxa; O R_1O with R_1 as defined above; a heterocyclic ring of 5 to 8 carbon and oxygen atoms

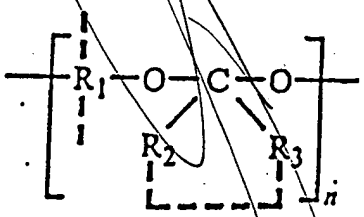
formed when R_2 and R_3 are taken together; a heterocyclic ring of 5 to 8 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons; an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons; and wherein at least one of said R_2 and R_3 is a member selected from the group consisting of alkoxy, alkenyloxy and OR_1O; R_1 and R_3 when taken together are a member selected from the group of heterocyclic and fused polycyclic rings having at least one oxygen atom in the ring; and wherein is greater than 10; so that when in operation, said layers bioerode at a controlled and continuous rate over a prolonged period of time, thereby releasing said at least one therapeutic substance at a controlled and continuous rate over a prolonged period of time.

62. The drug eluting stented graft of claim 61, wherein said first polymer is a pharmaceutically acceptable biocompatible non-bioerodible polymer that sequesters an agent for brachytherapy.

63. The drug eluting stented graft of claim 62, wherein said agent for brachytherapy is selected from the group consisting of palladium-103 (^{103}Pd), ^{192}Ir, ^{32}P, ^{188}Re, and Sr/Y90 source trains.

64. The drug eluting stented graft of claim 53, wherein:

- a multiplicity of discrete, closed cells exists within said at least one polymer, said cells having a wall formed and defined by said at least one polymer;
- said at least one polymer has the formula:



wherein R_1 is a member selected from the group of divalent, trivalent and tetravalent radicals consisting of alkylene of 1 to 10 carbons; alkenylene of 2 to 10 carbons; alkyleneoxy of 2 to 6 carbons; cycloalkylene of 3 to 7 carbons; cycloalkylene of 3 to 7 carbons substituted with an alkyl of 1 to 7 carbons, alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; cycloalkenylene of 4 to 7 carbons; cycloalkenylene of 4 to 7 carbons substituted with an alkyl of 1 to 7

carbons, an alkoxy of 1 to 7 carbons, an alkylene of 1 to 10 carbons, and an alkenyl of 2 to 7 carbons; arylene; and arylene substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons, and an alkenyl of 2 to 7 carbons; R_2 and R_3 are selected from the group consisting of alkyl of 1 to 7 carbons; alkenyl of 2 to 7 carbons; alkoxy of 1 to 7 carbons; alkenyloxy of 2 to 7 carbons; alkylene of 2 to 6 carbons; alkenylene of 3 to 6 carbons; alkyleneoxy of 2 to 6 carbons; alkenyleneoxy of 3 to 6 carbons; aryloxy; aralkyleneoxy of 8 to 12 carbons; aralkenyleneoxy of 8 to 12 carbons; oxa; OR_1O with R_1 as defined above; a heterocyclic ring of 5 to 8 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a heterocyclic ring of 5 to 8 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms formed when R_2 and R_3 are taken together; a fused polycyclic ring of 8 to 12 carbon and oxygen atoms substituted with an alkyl of 1 to 7 carbons, an alkoxy of 1 to 7 carbons and an alkenyl of 2 to 7 carbons; and wherein at least one of said R_2 and R_3 is a member selected from the group consisting of alkoxy, alkenyloxy and OR_1O; R_2 and R_3 when taken together are a member selected from the group of heterocyclic and fused polycyclic rings having at least one oxygen atom in the ring; and wherein n is greater than 10;

- wherein said at least one therapeutic substance dissolved in a pharmaceutically acceptable carrier that is a solvent for said at least

one therapeutic substance and a nonsolvent for said at least one polymer is contained within said multiplicity of discrete, closed cells; so that, when in operation, said at least one polymer is capable of bioeroding at a controlled and continuous rate over a prolonged period of time, thereby releasing said at least one therapeutic substance at a controlled and continuous rate over a prolonged period of time.

65. The drug eluting stented graft of claim 53, wherein said stent comprises a plurality of elements, wherein each said element comprises an undulating linear shape formed into a generally cylindrical configuration having a cylinder axis generally aligned on the axis of said hollow bore, and wherein each said element is connected to an adjacent neighbor element by at least one linear connector.

66. The drug eluting stented graft of claim 65, wherein said plurality of elements comprises a spiral.

67. The drug eluting stented graft of claim 65, wherein at least one said connector is substantially circumferentially offset from an adjacent neighbor connector.

68. The drug eluting stented graft of claim 67, wherein said circumferentially offset connectors form a helical array.

69. The drug eluting stented graft of claim 65, wherein at least one said connector is not substantially circumferentially offset from an adjacent neighbor connector.

70. The drug eluting stented graft of claim 65, wherein said undulating linear shape is a generally zigzag shape comprising a plurality of zigs having tips and a plurality of zags having tips, wherein said tip of each said zig of each element and the nearest said tip of each said zig of an adjacent neighbor element generally lie in a plane passing through the axis of said hollow bore, and wherein said tip of at least one said zig of each element and at least one said nearest said tip of a zig of an adjacent neighbor are connected by one said linear connector.

71. The drug eluting stented graft of claim 65, wherein said undulating linear shape is a sinusoidal shape having a plurality of peaks and a plurality of valleys, wherein each said peak of each element and each said valley of an adjacent neighbor generally lie in a plane passing through the axis of said hollow bore, and wherein at least one said peak of each element and said valley of an adjacent neighbor lying generally in said plane are connected by one said linear connector.

72. The drug eluting stented graft of claim 65, wherein each said linear connector has a length dimension generally parallel to the axis of said hollow bore, and

a width and depth dimension, and wherein said length dimension is greater than said width dimension and said length dimension is greater than said depth dimension.

73. The drug eluting stented graft of claim 72, wherein said length dimension is about 3 to 10 times greater than said width dimension, and said length dimension is about 3 to 10 times greater than said depth dimension.

74. The drug eluting stented graft of claim 53 wherein said PTFE is replaced by an elastomer selected from the group consisting of fluorinated ethylene propylene, polytetrafluoroethylene-perfluoroalkyl vinyl ether copolymer, polyvinyl chloride, polypropylene, polyethylene terephthalate, broad fluoride; and, other biocompatible plastics.

75. The drug eluting stented graft of claim 53 wherein said PTFE covering is formed of expanded, sintered PTFE tape, said tape having been wound about the outer surface of said stent to create said covering thereon.

76. The drug eluting stented graft of claim 53, wherein said PTFE is expanded polytetrafluoroethylene having fibrils.

77. The drug eluting stented graft of claim 76, wherein said fibrils measure up to about 300 μ in length.

78. The drug eluting stented graft of claim 76, wherein said fibrils measure up to about 200 μ in length.

79. The drug eluting stented graft of claim 76, wherein said fibrils measure up to about 100 μ in length.

80. The drug eluting stented graft of claim 76, wherein said fibrils measure up to about 50 μ in length.

81. The drug eluting stented graft of claim 76, wherein said fibrils measure up to about 5 μ in length.

82. The drug eluting stented graft of claim 75 wherein said tape has a width of less than about 1 inch (2.54 cm.).

83. The drug eluting stented graft of claim 75 wherein said tape has a thickness of less than 0.015 inch (0.038 cm.) and wherein said tape is wound about said stent in overlapping fashion, such that said elastomer covering comprises 1 to 10 layers of said tape.

84. The drug eluting stented graft of claim 75 wherein said tape is helically wrapped about said stent.

85. The drug eluting stented graft of claim 75 wherein said tape has a width of 0.5 inches (1.27 cm), and wherein said tape is helically wrapped such that 6-8 revolutions of tape are applied per longitudinal inch (2.54 cm.) of said drug eluting stented graft.

86. The drug eluting stented graft of claim 75 wherein said tape is helically wrapped alternately in a first direction and then in the opposite direction.

87. The drug eluting stented graft of claim 86 further comprising 8 layers of said tape.

88. The drug eluting stented graft of claim 53 wherein said stent is a self-expanding stent.

89. The drug eluting stented graft of claim 88, wherein said self-expanding stent comprises a shape memory alloy that can alternately exist in a first and a second crystalline state, wherein said stent assumes a radially expanded configuration when said shape memory alloy is in said first crystalline state, and a radially compact configuration when said shape memory alloy is in said second crystalline state.

90. The drug eluting stented graft of claim 53 wherein said stent is a pressure-expandable stent.

91. The drug eluting stented graft of claim 88 wherein said stent is formed of a metal alloy comprising at least two elements selected from the group consisting of iron, cobalt, chromium, nickel, titanium, niobium, and molybdenum.

92. The drug eluting stented graft of claim 89 wherein said shape memory alloy comprises at least about 51% to about 59% nickel and the remainder comprising titanium.

93. The drug eluting stented graft of claim 89 wherein said shape memory alloy comprises about 0.25% chromium, at least about 51% to about 59% nickel, and the remainder comprising titanium.

94. The drug eluting stented graft of claim 53 wherein said covering has a thickness of less than 0.1 inch (0.25 cm.).

95. The drug eluting stented graft of claim 75 wherein said PTFE tape has a thickness of less than 0.015 inches (0.038 cm.), said tape being wrapped about said stent in overlapping fashion so as to form said covering.

96. The drug eluting stented graft of claim 75 wherein said PTFE tape has a density of less than 1.6 g/cc.

97. The drug eluting stented graft of claim 75 wherein said covering has a thickness of less than 0.1 inch (0.25 cm.) and the PTFE tape has a density of less than 1.6 g/cc.

98. The drug eluting stented graft of claim 53 wherein said coat was applied to said stent by the steps of:

- immersing said stent in a liquid polymer dispersion;
- removing said stent from said liquid polymer dispersion; and,
- drying said liquid polymer dispersion that has remained on said stent,

whereby said coat is formed on said stent.

99. The drug eluting stented graft of claim 53 wherein said coat is formed by electron beam deposition.

100. The drug eluting stented graft of claim 53 wherein said tubular covering is adherent to said coat.

101. A method for the treatment of cardiovascular disease, comprising implanting the drug eluting stented graft of claim 53 in a patient in need of

such treatment wherein said implantation is effective to ameliorate one or more of the symptoms of said cardiovascular disease.

102. An article of manufacture, comprising packaging material and the drug eluting stented graft of claim 53 contained within the packaging material, wherein said drug eluting stented graft is effective for implantation in a patient afflicted with cardiovascular disease, and the packaging material includes a label that indicates that said device is effective for said implantation.